

the University of North Carolina report that children enrolled in Abecedarian as preschoolers still scored higher in math and reading at the age of 15 than untreated children. The children still retained an average IQ edge was 4.6 points. The earlier the children were enrolled, the more enduring the gain. And intervention after age 5 conferred no IQ or academic benefit.

All of which raises a troubling question. If the windows of the mind close, for the most part, before we're out of elementary school, is all hope lost for children whose parents did not have them count beads to stimulate their math circuits, or babble to them to build their language loops? At one level, no: the brain retains the ability to learn throughout life, as witness anyone who was befuddled by Greek in college only to master it during retirement. But on a deeper level the news is sobering. Children whose neural circuits are not stimulated before kindergarten are never going to be what they could have been. "You want to say that it is never too late," says Joseph Sparling, who designed the Abecedarian curriculum. "But there seems to be something very special about the early years."

And yet . . . there is new evidence that certain kinds of intervention can reach even the older brain and, like a microscopic screwdriver, rewire broken circuits. In January, scientists led by Paula Tallal of Rutgers University and Michael Merzenich of UC San Francisco described a study of children who have "language-based learning disabilities"—reading problems. LLD affects 7 million children in the United States. Tallal has long argued that LLD arises from a child's inability to distinguish short staccato sounds—such as "d" and "b." Normally, it takes neurons in the auditory cortex something like .015 second to respond to a signal from the ear, calm down and get ready to respond to the next sound; in LLD children, it takes five to 10 times as long. (Merzenich speculates that the defect might be the result of chronic middle-ear infections in infancy; the brain never "hears" sounds clearly and so fails to draw a sharp auditory map.) Short sounds such as "b" and "d" go by too fast—.04 second—to process. Unable to associate sounds with letters, the children develop reading problems.

The scientists drilled the 5- to 10-year-olds three hours a day with computer-produced sound that draws out short consonants, like an LP played too slow. The result: LLD children who were one to three years behind in language ability improved by a full two years after only four weeks. The improvement has lasted. The training, Merzenich suspect, redrew the wiring diagram in children's auditory cortex to process fast sounds. Their reading problems vanished like the sounds of the letters that, before, they never heard.

Such neural rehab may be the ultimate payoff of the discovery that the experiences of life are etched in the bumps and squiggles of the brain. For now, it is enough to know that we are born with a world of potential—potential that will be realized only if it is tapped. And that is challenge enough.

## EXECUTIVE SESSION

### EXECUTIVE CALENDAR

Mr. GRASSLEY. Again, for the majority leader, I ask unanimous consent that the Senate immediately proceed to executive session to consider the following nominations on today's Executive Calendar: Executive Calendar

nominations Nos. 502, 531, 532, 533, 535, 536, 537, 538, 539, and all nominations placed on the Secretary's desk in the Air Force, Army and Navy.

I further ask unanimous consent that the nominations be confirmed en bloc, the motions to reconsider be laid upon the table en bloc, that any statements relating to the nominations appear at the appropriate place in the RECORD, the President be immediately notified of the Senate's action, and that the Senate then return to legislative session.

The PRESIDING OFFICER. Without objection, it is so ordered.

The nominations considered and confirmed en bloc are as follows:

#### AIR FORCE

The following named officer for appointment to the grade of general while assigned to a position of importance and responsibility under Title 10, United States code, Section 601:

#### *To be general*

Lt. Gen. Michael E. Ryan, 000-00-0000, U.S. Air Force.

#### DEPARTMENT OF DEFENSE

Kenneth H. Bacon, of the District of Columbia, to be an Assistant Secretary of Defense. (New Position)

Franklin D. Kramer, of the District of Columbia, to be an Assistant Secretary of Defense.

#### DEFENSE NUCLEAR FACILITIES SAFETY BOARD

Joseph J. DiNunno, of Maryland to be a Member of the Defense Nuclear Facilities Safety Board for a term expiring October 18, 2000. (Reappointment)

#### AIR FORCE

The following-named officer for promotion in the Regular Air Force of the United States to the grade indicated under title 19, United States Code, section 624:

#### *To be brigadier general*

Col. Timothy J. McMahon, 000-00-0000

The following-named officer for appointment to the grade of lieutenant general while assigned to a position of importance and responsibility under Title 10, United States Code, Section 601:

#### *To be lieutenant general*

Maj. Gen. Kenneth E. Eickmann, 000-00-0000, United States Air Force

The following-named officer for appointment to the grade of lieutenant general while assigned to a position of importance and responsibility under Title 10, United States Code, Section 601:

#### *To be lieutenant general*

Maj. Gen. Richard T. Swope, 000-00-0000, U.S. Air Force

#### ARMY

The following-named officer for reappointment to the grade of lieutenant general in the United States Army while assigned to a position of importance and responsibility under title 10, United States Code, section 601(a):

#### *To be lieutenant general*

Lt. Gen. John G. Coburn, 000-00-0000, U.S. Army

The following-named officer for appointment to the grade of lieutenant general in the United States Army while assigned to a position of importance and responsibility under title 10, United States Code, section 601(a):

#### *To be lieutenant general*

Maj. Gen. John J. Cusick, 000-00-0000, U.S. Army

## LEGISLATIVE SESSION

The PRESIDING OFFICER. Under the previous order, the Senate will return to legislative session.

## APPOINTMENTS BY THE MAJORITY AND MINORITY LEADERS

Mr. GRASSLEY. Mr. President, I ask unanimous consent that pursuant to Public Law 103-432, the following members be named to the Advisory Board on Welfare Indicators:

Jo Anne B. Barnhart, of Virginia; Martin H. Gerry, of Kansas; Gerald H. Miller, of Michigan, upon the recommendation of the majority leader, and Paul E. Barton, of New Jersey, upon the recommendation of the minority leader.

The PRESIDING OFFICER. Without objection, it is so ordered.

## ORDERS FOR FRIDAY, MARCH 29, 1996

Mr. GRASSLEY. Mr. President, I further ask unanimous consent that when the Senate completes its business today, it stand in adjournment until the hour of 10 a.m. on Friday, March 29; further, that immediately following the prayer, the Journal of proceedings be deemed approved to date, no resolutions come over under the rule, the call of the calendar be dispensed with, the morning hour be deemed to have expired, and the time for the two leaders be reserved for their use later in the day; that there then be a period for morning business until the hour of 12:30, with Senators to speak for up to 5 minutes each except for the following: Senator THOMAS, 30 minutes; Senator DORGAN, 20 minutes; Senator HATCH, 20 minutes; Senator COHEN, 15 minutes; Senator FAIRCLOTH, 10 minutes; Senator HUTCHISON, 5 minutes; Senator WELLSTONE, 10 minutes; Senator MURKOWSKI, 15 minutes; Senator GLENN, 15 minutes; and Senator MCCONNELL, 10 minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. GRASSLEY. I thank the Chair.

## PROGRAM

Mr. GRASSLEY. Mr. President, the leader would like me to inform all of our colleagues that there will be a period for morning business for 2½ hours to accommodate a number of requests by Members. It is hoped that during tomorrow's session, the omnibus appropriations conference report will become available. Senators should therefore be aware rollcall votes are possible during Friday's session. The Senate may also be asked to turn to any other legislative or executive items for action.

## ORDER FOR ADJOURNMENT

Mr. GRASSLEY. Mr. President, if there is no further business to come before the Senate, I now ask unanimous